FIELD SERVICE GUIDE FOR IFT CONTROL SYSTEM

fireparts.com

Introduction

This document provides detailed information for effective service of the IntelliFire Touch (IFT) Control System. The information in this document is for qualified service technicians.

Service technicians must follow appropriate codes, understand and follow manufacturer's installation instructions, and use specified replacement parts and materials when servicing gas appliances. Service parts are subject to change at any time. Refer to the service parts list for the appliance for specified replacement parts.

Technical Assistance – Dealers & Distributors

Hearth & Home Technologies 1-855-CALLHHT (255-5448)

Contact Technical Service for the appropriate brand dedicated to trade channel partners. Do not provide this contact information to consumers or builders. Be prepared to provide the following information:

Model and Serial #
Detailed problem description
Previous service history or HHT Reference #

fire-parts.com

Reference the warranty policy and coverage in the appliance manual. RMA requirements are subject to change.

Table of Contents / Quick Reference

IFT Control System Overview……..….Page 3

ECM and ACM Power Connections……...Page 7

Remote Control Pairing Instructions/FAQ…….……..……Page 8

IFT Troubleshooting Diagnostics……..……..……..…Page 14

Gas Valve Troubleshooting…….……Page 15

AC/DC Adapter Troubleshooting……..……..Page 18

Pilot Ignition Troubleshooting……..Page 19

Pilot Flame Sensing Rectification Troubleshooting……..Page 21

IFT Appliance Equipped with Powervent Troubleshooting……..Page 24

FAQ/Troubleshooting with IFT Controls……..……..…..…….Page 27

Wi-Fi Module and Mobile App ……..……..……..…..……Page 32

fire-parts.com

IFT Control System Overview

This fireplace control system consists of the following components:

Ignition and Control Components

- Electronic Control Module (ECM): This is the primary control for the system. It controls ignition spark voltage, gas valve voltages, IPI pilot flame sensing, and other consumer-directed functions.
- AC/DC Adapter: This component transforms 120VAC power from the junction box to 6VDC as the primary power source to the ECM
- IPI Pilot Assembly: Provides ignition spark discharge, pilot flame, and flame sense electrode.
- Gas Valve: Provides gas supply to the IPI Pilot, and regulated gas supply to the main burner.
- Multi-wire Harness: Connects the ECM to the gas valve, chassis ground, back-up battery pack, and optional switching configurations including to the Powervent Pressure Switch.
- Back-up Battery Pack: Optional power source for use during power outages. Not intended as a primary power source. Cannot be used with Powervented appliances/SMART-WALL or other models that may be exempt.

fire parts.com

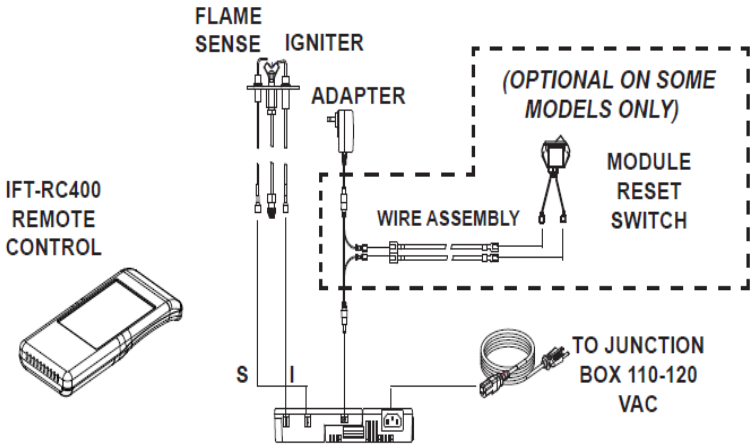
Auxiliary Control Components

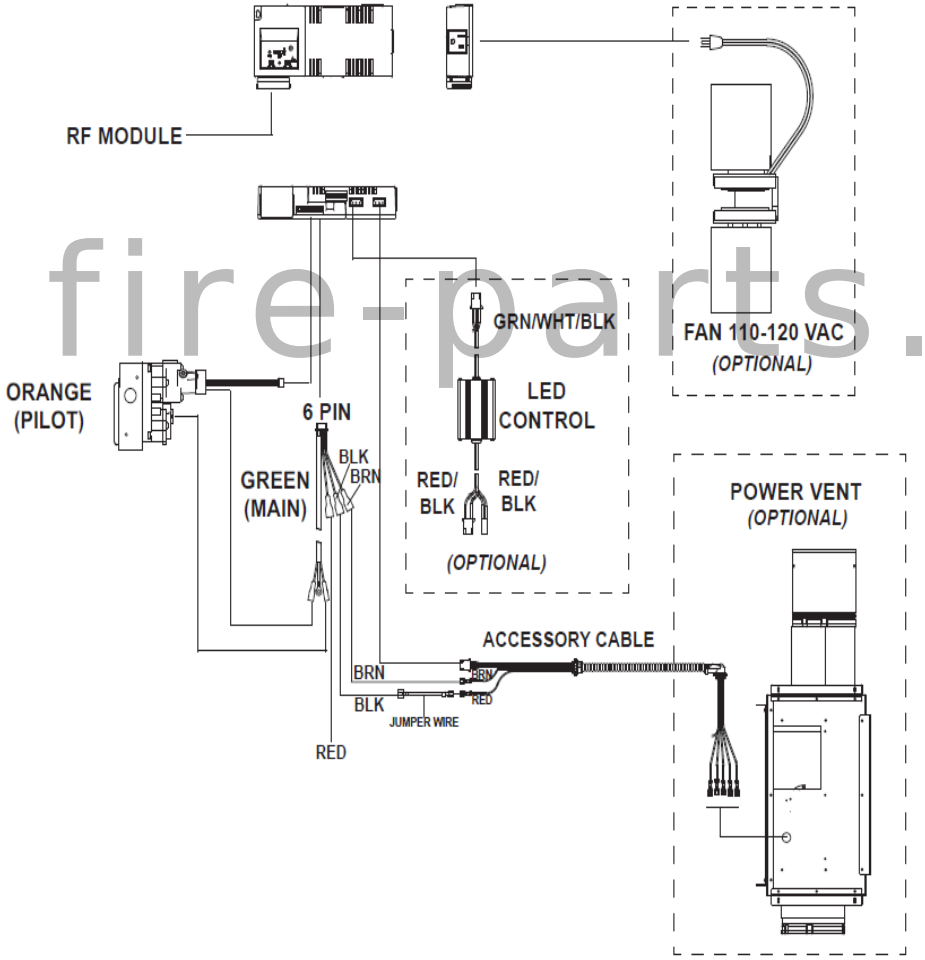
- Auxiliary Control Module (ACM) Provides voltage control to optional peripheral loads, including one convection blower, one Power Vent Kit, and/or lights. The ACM connects to the ECM. The ACM is powered by a separate 120VAC cord connected to the junction box.

Wireless Control Components

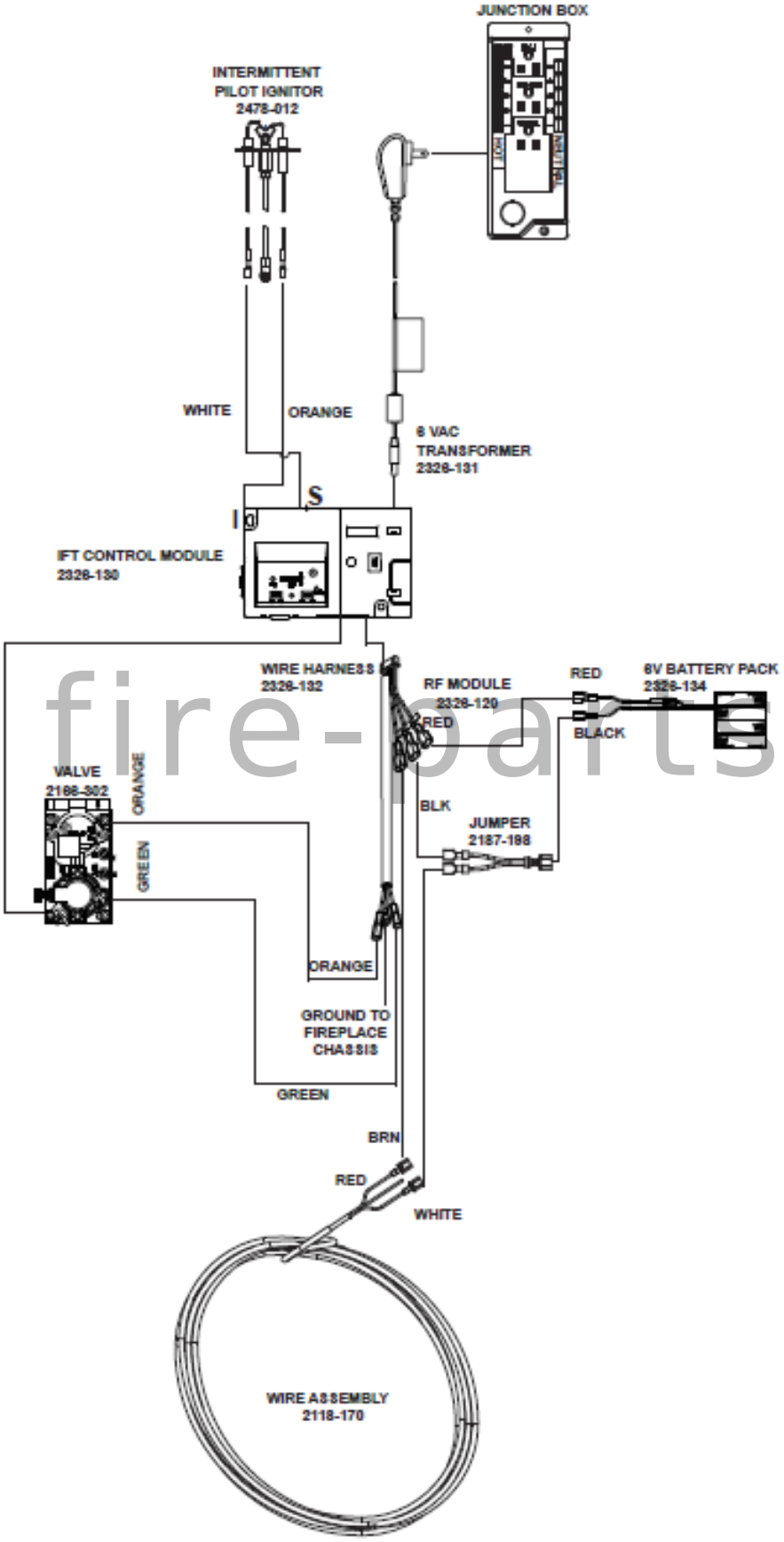
- RF Module: Provides wireless radio-frequency capability to the ECM. The RF module must be connected to the ECM to communicate with the RC400 or RC150 remote controls.
- RC400: Multifunction ‘touch-screen’ remote control
- RC150: Wireless wall switch, with ON/OFF and cold-climate switching function
- WF Module: Provides 2.4 GHz WIFI connectivity to iOS/Android apps to the ECM. The WF module must be connected to a WIFI-enabled ECM (FW versions 2.0.5 and higher).

This fireplace control system can be configured to multiple installation scenarios:

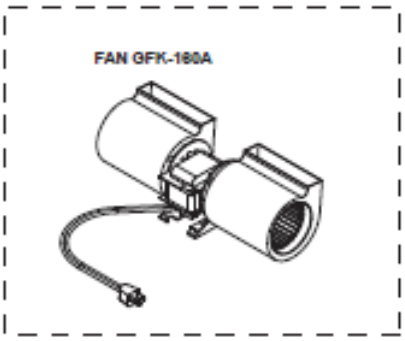


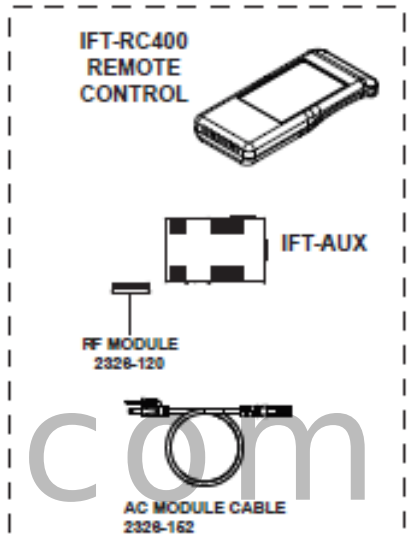


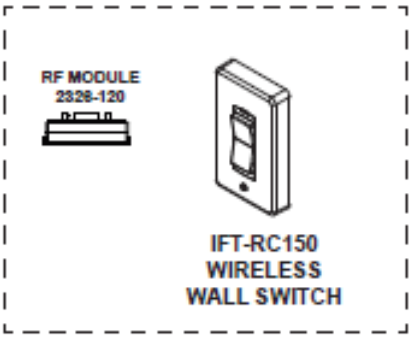
fire-parts.com



OPTIONS







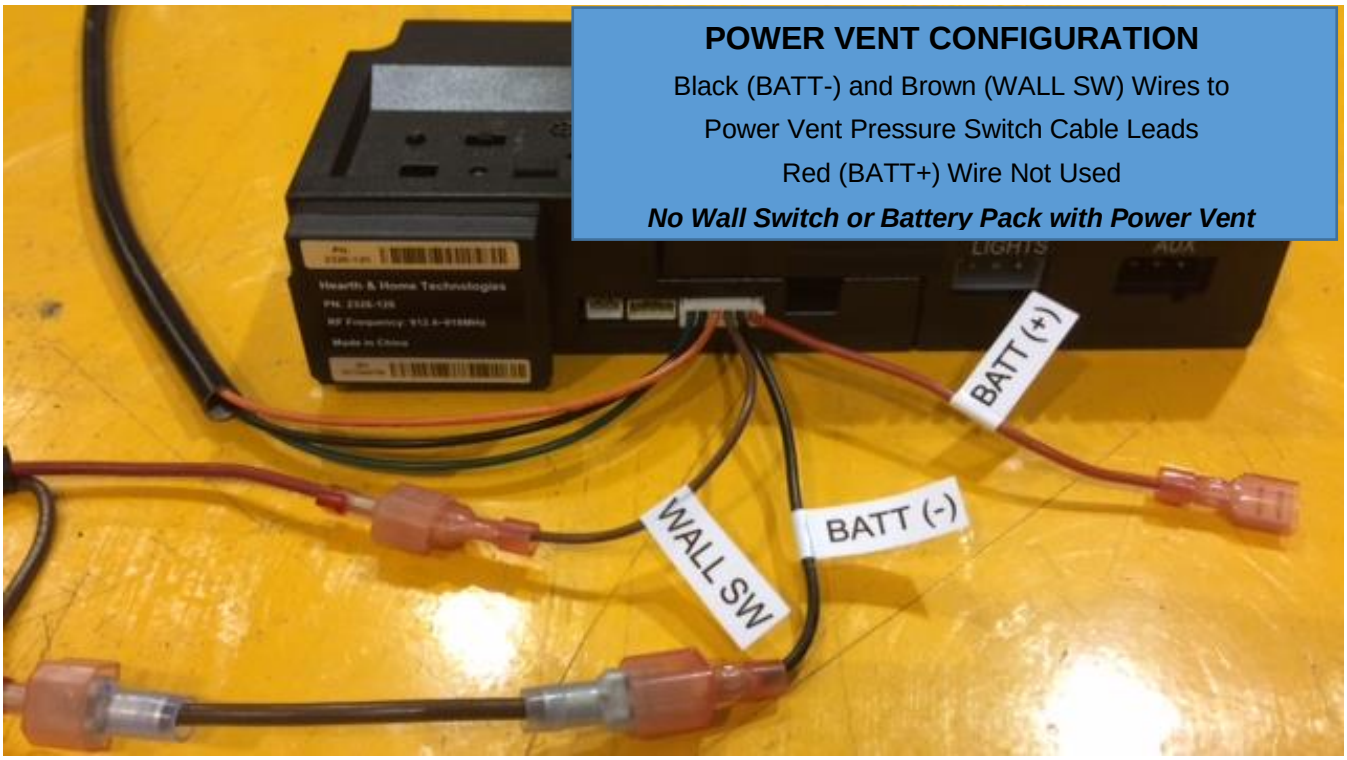
fire-parts.com

STANDARD CONFIGURATION

Black (BATT-) and Brown (WALL SW) Wires to Optional Wired Wall Switch

Red (BATT+) and Black (BATT-) Wires Connected to Battery Pack

fire-parts.com



POWER VENT CONFIGURATION

Black (BATT-) and Brown (WALL SW) Wires to Power Vent Pressure Switch Cable Leads

Red (BATT+) Wire Not Used

No Wall Switch or Battery Pack with Power Vent

ACM and ECM Power Connections

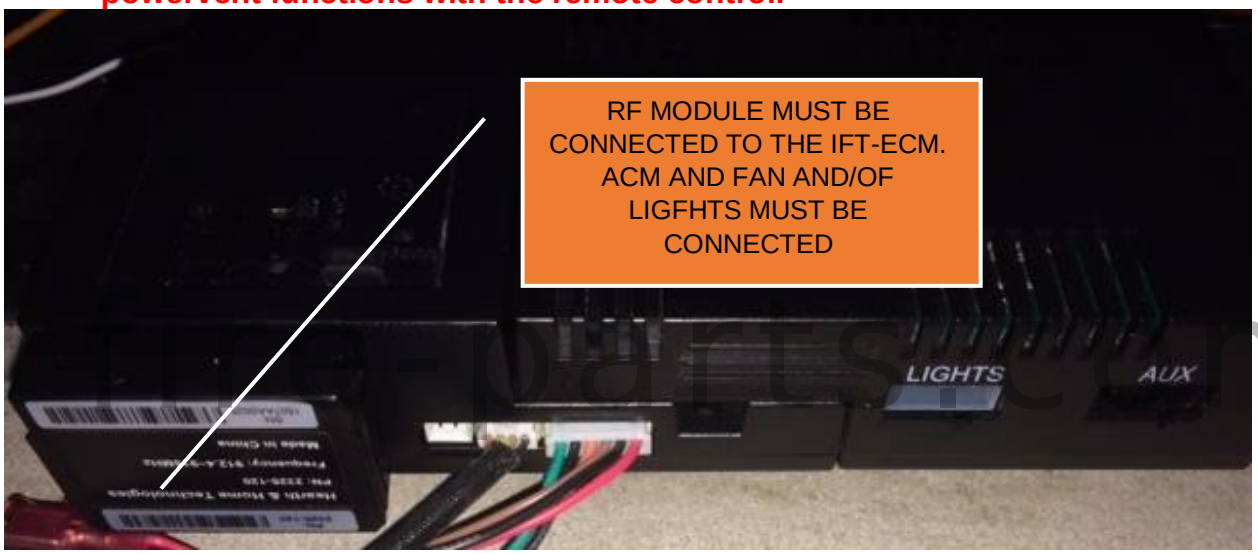
- The ACM is connected to the ECM. The connection is a low-voltage data connection.
- The ACM must be connected to 120VAC power source at the appliance J-Box.
- The ECM must be connected to 6VDC power source via the AC/DC Adapter.
- Grounding is critical to IFT Control performance and safety. When servicing product, always verify that the J-Box is securely attached to the appliance chassis.

fire-parts.com

Remote Control Pairing Instructions and FAQ

VERIFY ALL ELECTRICAL CONNECTIONS BEFORE PAIRING REMOTE TO ECM.
BEFORE ATTEMPTING TO PAIR, VERIFY THE FOLLOWING THREE CONDITIONS:

1. RF Module must be connected to the ECM.
2. If ACM is part of the control installation, it must be connected to the ECM. ACM must be powered by 120VAC thru the junction box at the time of pairing. Verify that ACM power supply cord is securely connected to the ACM.
3. All loads, including blower, lights, or Power Vent need to be connected to ACM.
   Note: If an additional component is added to an existing system, the pairing process must be repeated to pair the added component to the system.
   After pairing, always function test the appliance to ensure the blower, lights, and/or powervent functions with the remote control.



Installing New Products that Include Standard IFT Remote

If the hearth appliance was shipped from factory standard with IFT Remote, that remote was paired to the IFT-ECM module and tested at the factory. The remote does not need to be re-paired, unless an accessory kit will be added at the time of installation. If no additional accessory will be added, simply follow steps 1 thru 7 below:

1. If installed, remove batteries from remote.
2. Verify that the appliance has power and secure electrical connections. Verify that the power supply cord is securely engaged into the back side of the IFT-ACM (if equipped).
3. Switch the master reset switch to 'ON' (if equipped).
4. Adjust the ECM selector switch to 'REMOTE' mode. Verify that the ECM beeps.
5. Wait to verify the LED indicator on the ECM stops flashing. This can take several minutes.
6. After the LED indicator stops flashing, install batteries in the RC400.
7. The RC400 remote will automatically pair to the IFT-ECM as pre-set at the factory, within four minutes.

If adding a new remote and/or accessory, follow the installation instructions for pairing the remote control.

RC400 Pairing Procedure

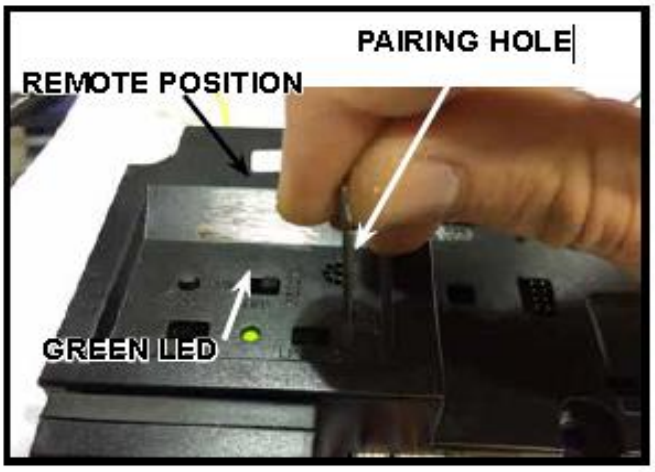
1. On the IFT-ECM, move the ON/OFF/REMOTE switch to the REMOTE position. The green LED will blink three times. A few seconds later, an audible “beep” will occur to indicate that the system is ready. **Note:** If the green LED continues to blink slowly (system is searching for a clear channel), wait until it stops before proceeding to Step 2.

2. Locate the pairing hole on the IFT-ECM. Using a paper clip or similar item, press and release the pairing button. The IFT-ECM will “beep” once and the green LED will blink for 14 seconds. During the 14 seconds, it is normal for accessories such as lights or fan to energize momentarily. Verify that optional accessories are being energized. If there is any question, repeat Step 2 to verify the lights, fan, and/or Powervent energize. This is required for the IFT control to recognize the loads, which will cause the system to show the correct ICONs on the touch-screen display.

3. While the green LED on the IFT-ECM is blinking, tap anywhere on the gray indicator bar located at the top of the IFT-RC400 screen. Tap on the pairing function icon. If the IFT-RC400 has been paired successfully to the IFT-ECM, a double audible ‘beep” will be heard from the IFT-ECM. If the 14 sec sequence elapses before the audible double “beep” occurs, repeat the process.

fire-parts.com

IFT-ECM



IFT-RC400

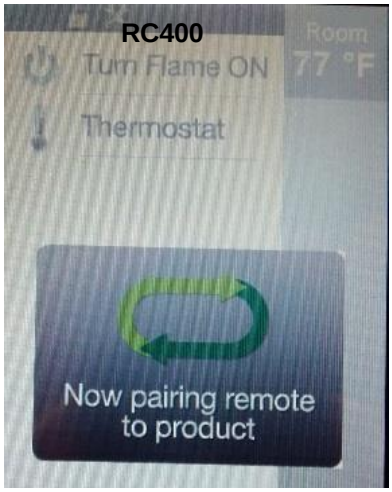
Re-Pairing RC400 after adding an IFT-ACM, optional RC150, Fan Kit, Lights Kit, SMART-WALL, or Powervent

Whenever adding an accessory to an IFT system, the ECM must be re-paired, to complete the installation.

Ensure that all the wire connections are complete and verify that the ACM is powered by 120V thru the junction box.

During re-pairing, the RC400 may display 'Now pairing remote to product' ***before*** the tech is able to reach the diagnostic menu on remote. This message will impair the ability to access the pairing icon button.

If the RC400 displays the following message, use the following procedure to make re-pairing easier:



fire-parts.com

Bypassing 'Now pairing remote to product' display when re-pairing RC400:

1. Remove one AAA battery from the RC400. Press the pairing button on the IFT-ECM.
2. Quickly install the battery into the RC400.
3. As soon as the RC400 beeps and main screen appears, tap on the RC400 gray indicator bar. Then immediately tap the pairing icon. Successful pairing will be indicated by a double beep from the IFT-ECM.
4. If re-pairing is not confirmed by the double-beep, repeat the process.

RC150 Pairing Procedure

1. Separate the outer case from the RC150. To do this, insert a small flat screwdriver in the tab located in the bottom of the wall switch and twist the screwdriver to disassemble the wall switch.

2. On the IFT-ECM, move the ON/OFF/REMOTE switch to the REMOTE position. The green LED will blink three times. A few seconds later, an audible "beep" will occur to indicate that the system is ready. **Note:** If the green LED continues to blink slowly (system is searching for a clear channel), wait until it stops before proceeding to step 3.

3. Locate the pairing hole on the IFT-ECM. Using a paper clip or similar item, press and release the pairing button. The IFT-ECM will "beep" once and a green LED will blink for 14 seconds.

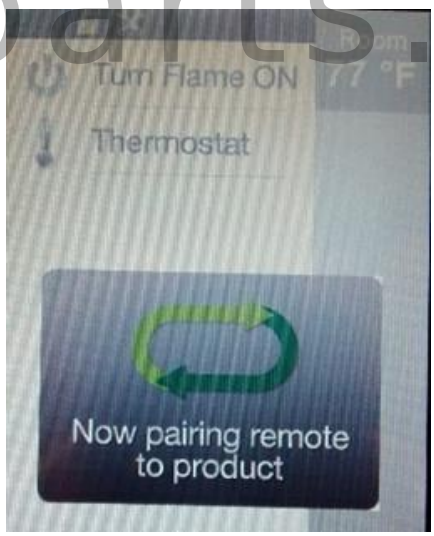
4. While the green LED on the IFT-ECM is blinking, press and release the pairing button on the IFT-RC150 with a paper clip or similar item. The device will indicate it is in pairing mode by blinking red LED. If the device has been paired successfully to the IFT-ECM, an audible double "beep" will be heard from the IFT-ECM.

5. If pairing is unsuccessful, repeat step 3. Replace IFT-RC150 cover removed in Step 1.

IFT Pairing FAQ's

fire-parts.com

FAQ: Why does my RC400 screen lock-up with the "Now pairing remote to product" Icon?



Answer: The RC400 has been previously paired to its IFT-ECM, but the RC400 has lost communication with its IFT-ECM. There are several common causes for this issue:

1. The appliance was shipped from the factory with IFT-ECM set in 'OFF' mode, and/or the Master Reset Switch is 'OFF'. In either condition, the IFT-ECM does not have power, so it cannot communicate with the RC400.
2. There is no power to the appliance, such as the circuit breaker is switched off, or a power outage.

Take the following steps to restore communication between the RC400 and the IFT-ECM:

1. Verify that there is power to the appliance, and that the 6V AC/DC adapter is securely plugged into the junction box. If there is a power outage, install new batteries into the 4xAA case.
2. Verify all electrical connections at the IFT-ECM control.
3. Verify that the RF Module is securely connected to the IFT-ECM.
4. Verify that the IFT-ECM is switched to 'REMOTE' mode, and the Master Reset Switch is 'ON'.
5. Verify that the IFT-ECM is NOT slow blinking Green – if it is, wait until it stops blinking (ECM is searching for a clear communication channel).
6. Install the batteries into the RC400. Verify the RC400 automatically pairs up to the IFT-ECM within four minutes.

FAQ: Why does 'Fan Speed' Icon not display after pairing?

Answer: The 'Fan Speed' Icon will not display on the main menu screen unless the Flame ON is active. Turn the Flame ON to verify the 'Fan Speed' Icon is on the display.

FAQ: Why does 'Fan Speed' or 'Lights' not display after pairing?

fireparts.com

Answer: The most common cause is that the IFT control did not detect the Fan and/or Lights during pairing. This most often occurs when the IFT-ACM does not have power, or either the Lights or Fan are not connected to the IFT-ACM. In these scenarios, the IFT control cannot detect the load(s) during pairing. It is unlikely that this is caused by the RC400, IFT-ECM, or RF Module.

Take the following steps to troubleshoot this issue:

1. Verify that the IFT-ACM is securely latched to the IFT-ECM.
2. Verify that the IFT-ACM power cord is securely connected to the back of the IFT-ACM.
3. Verify that the IFT-ACM power cord is plugged into the live receptacle on the junction box.
4. Verify that the Lights and/or Fan(s) are plugged into the IFT-ACM.
5. Press the pairing button on the IFT-ECM, and carefully observe that the Lights and/or Fan momentarily energize during the 14 seconds pairing cycle. If unsure, repeat the pairing cycle to verify that the loads are momentarily energized. This will verify that the circuit and the loads have power.
6. Repeat the steps to re-pair the RC400. The 'Lights' and/or 'Fan Icons' should display once the product is switched to the Flame ON.
7. If #1-6 are not successful, replace the IFT-ACM.

FAQ: Why does the green LED blink for a while after the IFT-ECM is switch to 'Remote' mode?

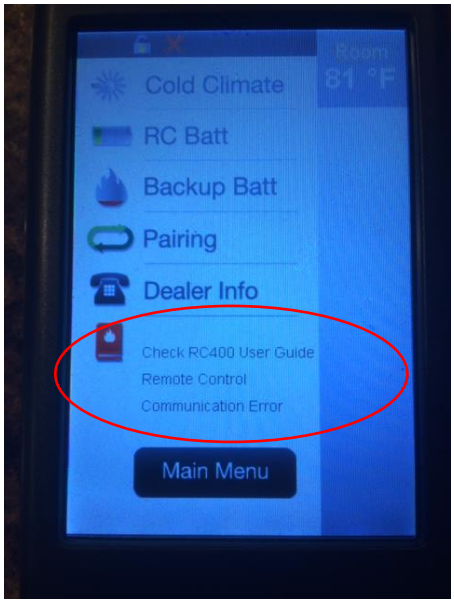
Answer: The IFT-ECM is searching for a secure RF channel. This is normal. This channel scan can sometimes take several minutes. The technician should wait for the channel scan to complete, before attempting to establish RC400 communication.

FAQ: Does the remote control need to be re-paired after a power outage?

Answer: No. The IFT control is designed and tested to remain paired, even after an extended power outage. Once power is restored, or emergency battery backup is loaded with 4xAA batteries, the RC400 will automatically establish communication with its paired IFT-ECM within four minutes.

fire parts.com

FAQ: What are the common ways to fix a product where the RC400 displays 'Check RC400 User Guide – Remote Control Communication Error'



Answer: The RC400 has lost communication with its paired IFT-ECM. The most common cause is that the IFT-ECM has lost power. Verify that the IFT-ECM has power, is switched to 'REMOTE' mode, and the Master Reset Switch is 'ON'. Once the IFT-ECM has power, the RC400 should automatically pair up to the system within four minutes.

If the condition persists, follow the installation instructions to re-pair the RC400 to the IFT-ECM. If this is unsuccessful, then it is possible that the RF Module is malfunctioning, and the RF Module should be replaced.

IFT Troubleshooting Diagnostics

System Error Codes & Built-in Diagnostics

The IFT has enhanced system diagnostic capabilities in two forms, the ECM LED Error Codes and the RC400 (if equipped). The authorized service technician shall utilize the information from these sources to direct actions & document the findings.

ECM LED Error Codes

ECM LED Error Codes	Description
3 Red: 1 Green	IFT-RC400 display: 'Appliance Safely Disabled', no ignition and/or flame rectification during ignition trial. Technician shall follow applicable **IPI Pilot Ignition and Flame Sensing Rectification (**section).
2 Red: 1 Green	IFT-RC400 display: 'Error Pilot Flame', pilot valve solenoid not detected. Technician shall follow applicable **Gas Valve Troubleshooting** (section).
2 Red: 2 Green	Sparking feedback signal error, spark coil failure. The module has an internal hardware failure that cannot be repaired. Replace the ECM.
5 Red: 1 Green	IFT-RC400 display: 'Error Power Vent'. This Error Code only occurs in systems equipped with an approved SMART-WALL or Powervent Kit. There are multiple possible causes for this error code. Technician shall follow **IFT Appliance Equipped with Powervent Troubleshooting** (section).

fire-parts.com

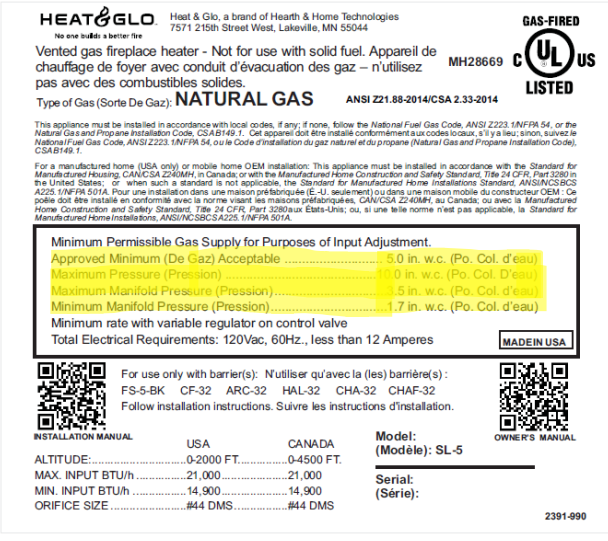
Gas Valve Troubleshooting

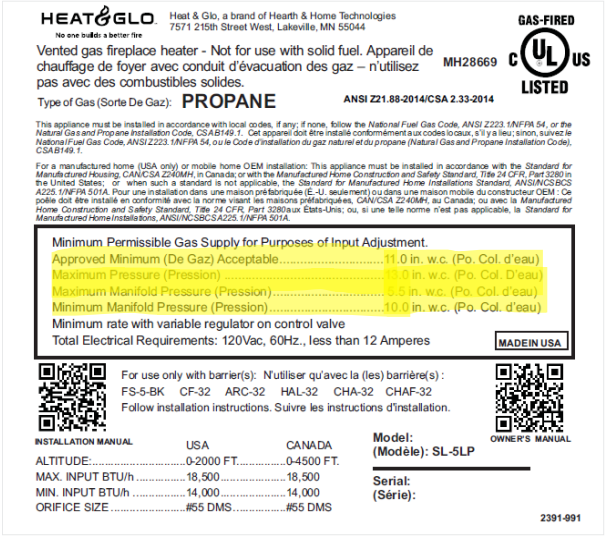
Pilot won't light, there is no noise or spark, 2 Red/1 Green Lockout.	Pilot solenoid not detected.	Verify that valve harness orange wire is securely connected to pilot solenoid valve. Verify pilot solenoid resistance is between 38 to 42 ohms. If resistance is low, open lead, or shorted, replace valve. Check valve harness wire continuity, if open replace 6-pin harness.
IFT-RC400 displays the following message on-screen: Call Dealer Error: Pilot Flame In addition, the LED indicator on the IFT-ECM will flash twice red and once green indefinitely.	Valve harness orange wire is not attached to gas valve.	Verify that all wires are correctly installed between the gas valve and the IFT-ECM.
	IFT-ECM is not grounded.	Verify that the black wire from the 6-pin wiring harness on the IFT-ECM is securely attached to the metal chassis.
	Wire is damaged and open.	Verify continuity of the green and orange valve wires, and the black ground wire. Replace wire harness if open lead exists.
	Wires damaged due to heat.	Verify that none of the wires are melted, and/or shorted. Replace damaged wiring if it exists.
	Gas valve is damaged.	Verify the pilot valve solenoid resistance by measuring across the pilot spade and any non-oxidized metal surface of the gas valve. If open, or coil resistance less than 38 ohms, replace the gas valve.

fire-parts.com

Working Supply and Manifold Gas Pressures

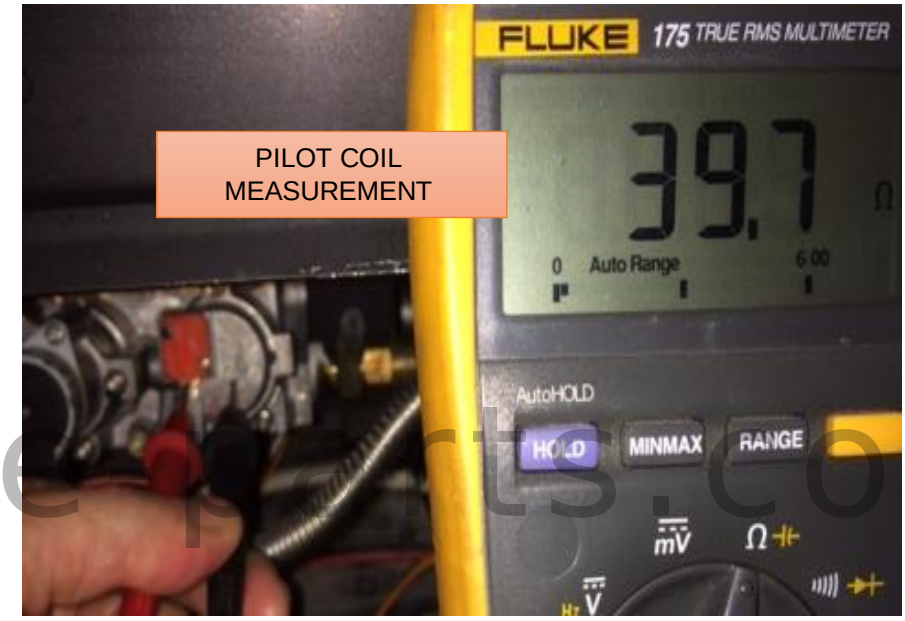
- Refer to the appliance rating plate for specified working inlet and outlet pressure for appliance/gas-type.
- IFT Controls require working pressures within the tolerances on the appliance rating plate. Make any necessary adjustments to the supply working pressure.

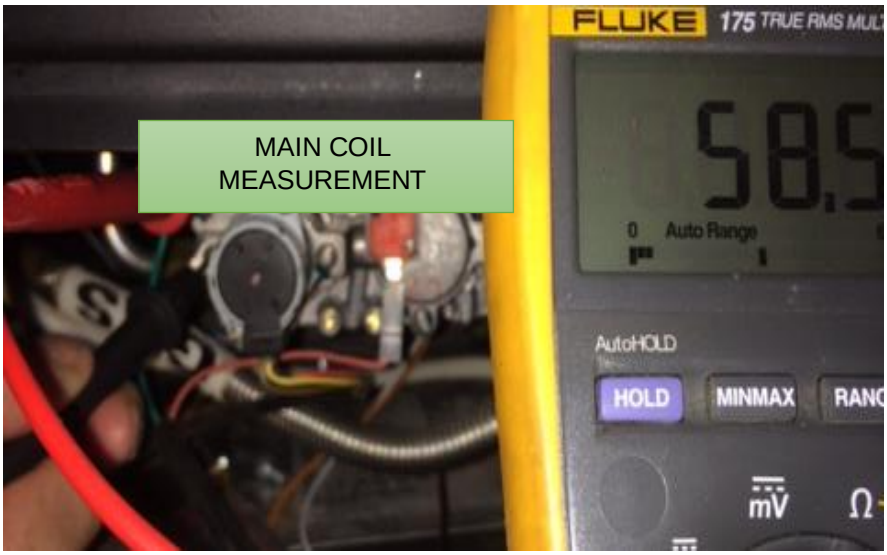

HEAT&GLO
No one builds a better fire
Heat & Glo, a brand of Hearth & Home Technologies
7571 215th Street West, Lakeville, MN 55044
Vented gas fireplace heater - Not for use with solid fuel. Appareil de chauffage de foyer avec conduit d'évacuation des gaz – n'utilisez pas avec des combustibles solides.
MH28669
GAS-FIRED
c UL us LISTED
Type of Gas (Sorte De Gaz): NATURAL GAS
ANSI Z21.88-2014/CSA 2.33-2014
This appliance must be installed in accordance with local codes, if any; if none, follow the National Fuel Gas Code, ANSI Z223.1/NFPA 54, or the Natural Gas and Propane Installation Code, CSA B149.1. Cet appareil doit être installé conformément aux codes locaux, s'il y a lieu; sinon, suivez le National Fuel Gas Code, ANSI Z223.1/NFPA 54, ou le Code d'installation du gaz naturel et du propane (Natural Gas and Propane Installation Code), CSA B149.1.
For a manufactured home (USA only) or mobile home OEM installation: This appliance must be installed in accordance with the Standard for Manufactured Housing, CAN/CSA Z240MH, in Canada; or with the Manufactured Home Construction and Safety Standard, Title 24 CFR, Part 3280 in the United States; or when such a standard is not applicable, the Standard for Manufactured Home Installations Standard, ANSI/NCSBCS A225.1/NFPA 501A. Pour une installation dans une maison préfabriquée (É.-U. seulement) ou dans une maison mobile du constructeur OEM : Ce poêle doit être installé en conformité avec la norme visant les maisons préfabriquées, CAN/CSA Z240MH, au Canada; ou avec la Manufactured Home Construction and Safety Standard, Title 24 CFR, Part 3280 aux États-Unis; ou, si une telle norme n'est pas applicable, la Standard for Manufactured Home Installations, ANSI/NCSBCS A225.1/NFPA 501A.
Minimum Permissible Gas Supply for Purposes of Input Adjustment.
Approved Minimum (De Gaz) Acceptable ..... 5.0 in. w.c. (Po. Col. d'eau)
Maximum Pressure (Pression) ..... 10.0 in. w.c. (Po. Col. D'eau)
Maximum Manifold Pressure (Pression) ..... 3.5 in. w.c. (Po. Col. d'eau)
Minimum Manifold Pressure (Pression) ..... 1.7 in. w.c. (Po. Col. d'eau)
Minimum rate with variable regulator on control valve
Total Electrical Requirements: 120Vac, 60Hz., less than 12 Amperes
MADE IN USA
For use only with barrier(s): N'utiliser qu'avec la (les) barrière(s) :
FS-5-BK CF-32 ARC-32 HAL-32 CHA-32 CHAF-32
Follow installation instructions. Suivre les instructions d'installation.
INSTALLATION MANUAL
OWNER'S MANUAL
USA CANADA
ALTITUDE: 0-2000 FT. 0-4500 FT.
MAX. INPUT BTU/h 21,000 21,000
MIN. INPUT BTU/h 14,900 14,900
ORIFICE SIZE #44 DMS #44 DMS
Model: (Modèle): SL-5
Serial: (Série):
2391-990


HEAT&GLO
No one builds a better fire
Heat & Glo, a brand of Hearth & Home Technologies
7571 215th Street West, Lakeville, MN 55044
Vented gas fireplace heater - Not for use with solid fuel. Appareil de chauffage de foyer avec conduit d'évacuation des gaz – n'utilisez pas avec des combustibles solides.
MH28669
GAS-FIRED
c UL us LISTED
Type of Gas (Sorte De Gaz): PROPANE
ANSI Z21.88-2014/CSA 2.33-2014
This appliance must be installed in accordance with local codes, if any; if none, follow the National Fuel Gas Code, ANSI Z223.1/NFPA 54, or the Natural Gas and Propane Installation Code, CSA B149.1. Cet appareil doit être installé conformément aux codes locaux, s'il y a lieu; sinon, suivez le National Fuel Gas Code, ANSI Z223.1/NFPA 54, ou le Code d'installation du gaz naturel et du propane (Natural Gas and Propane Installation Code), CSA B149.1.
For a manufactured home (USA only) or mobile home OEM installation: This appliance must be installed in accordance with the Standard for Manufactured Housing, CAN/CSA Z240MH, in Canada; or with the Manufactured Home Construction and Safety Standard, Title 24 CFR, Part 3280 in the United States; or when such a standard is not applicable, the Standard for Manufactured Home Installations Standard, ANSI/NCSBCS A225.1/NFPA 501A. Pour une installation dans une maison préfabriquée (É.-U. seulement) ou dans une maison mobile du constructeur OEM : Ce poêle doit être installé en conformité avec la norme visant les maisons préfabriquées, CAN/CSA Z240MH, au Canada; ou avec la Manufactured Home Construction and Safety Standard, Title 24 CFR, Part 3280 aux États-Unis; ou, si une telle norme n'est pas applicable, la Standard for Manufactured Home Installations, ANSI/NCSBCS A225.1/NFPA 501A.
Minimum Permissible Gas Supply for Purposes of Input Adjustment.
Approved Minimum (De Gaz) Acceptable ..... 11.0 in. w.c. (Po. Col. d'eau)
Maximum Pressure (Pression) ..... 13.0 in. w.c. (Po. Col. D'eau)
Maximum Manifold Pressure (Pression) ..... 6.5 in. w.c. (Po. Col. d'eau)
Minimum Manifold Pressure (Pression) ..... 10.0 in. w.c. (Po. Col. d'eau)
Minimum rate with variable regulator on control valve
Total Electrical Requirements: 120Vac, 60Hz., less than 12 Amperes
MADE IN USA
For use only with barrier(s): N'utiliser qu'avec la (les) barrière(s) :
FS-5-BK CF-32 ARC-32 HAL-32 CHA-32 CHAF-32
Follow installation instructions. Suivre les instructions d'installation.
INSTALLATION MANUAL
OWNER'S MANUAL
USA CANADA
ALTITUDE: 0-2000 FT. 0-4500 FT.
MAX. INPUT BTU/h 18,500 18,500
MIN. INPUT BTU/h 14,000 14,000
ORIFICE SIZE #55 DMS #55 DMS
Model: (Modèle): SL-5LP
Serial: (Série):
2391-991

Valve Solenoid Resistance Checks

- Gas valve coil resistance is a fast and effective measurement of the valve function.
- Pilot solenoid resistance range 38 - 42 ohms
- Main solenoid resistance range 58 – 62 ohms
- If solenoid measures outside of range, or is open, replace the gas valve.
- If solenoid resistance is normal, then the valve should not be suspected as direct cause of problem.





fireparts.com

Valve Stepper Motor Resistance Checks

- Stepper motor is not serviceable. Must replace the regulator assembly.
- Stepper motor requires 5 VDC to energize, so it can malfunction during system operation when powered during emergency battery backup. As batteries deplete to < 5 V, the ability to energize the stepper motor is compromised.
- The stepper motor coil resistance is a fast and effective measurement to determine if the valve is malfunctioning. Decision to replace valve should be based on motor resistance measurements. It is highly unlikely that the ECM is the source of a suspected valve stepper motor issue.
- Stepper motor is bi-directional, with two coils, as measured across RED and YELLOW wire pair, and BLACK and BROWN wire pair. Access wires on back of 4-pin connector as connected to the ECM. Each pair should exhibit resistance of 4.5 to 5.5 ohms. If out of range, or open, replace the Stepper Motor Regulator assembly.

fixmypart.com

AC/DC Adapter Troubleshooting

Symptoms	Possible Cause	Corrective Action
Pilot will not light, there is no noise or spark IFT-ECM abnormal or no function when switched to 'ON' or 'REMOTE' mode. (No module response).	AC/DC adaptor faulty	Verify AC/DC adaptor output voltage is between 5.7-6.3 VDC. If voltage is less than 5.5 VDC, or is unstable, then the device is faulty and should be replaced
	No 110-120 VAC power to appliance	Verify AC power available to junction box.
		Verify AC/DC adaptor is plugged into ECM.
		Verify that AC/DC adapter is plugged into the correct receptacle at junction box.

fire-parts.com

AC/DC Adapter Voltage Verification

- Set multimeter to Volts DC (VDC).
- Measure output voltage (VDC) of the AC/DC Adapter at the jack plug.
- Verify the output voltage is stable and between 5.7 and 6.3 VDC

Pilot Ignition Troubleshooting

Symptom	Possible Cause	Corrective Action
Pilot won't light, module clicks but no spark, 3 Red/1 Green Lock out.	Incorrect wiring.	Verify 'S' (White) sense wire and 'I' (orange) ignitor wire are connected to correct terminals on IFT-ECM.
	Loose connections or electrical shorts in wiring.	Verify no loose connections or electrical shorts in wiring from module to pilot assembly. Verify secure connection between orange 'I' lead and the ECM. Verify wire insulation is not damaged. Verify wires are not grounding out to chassis, pilot burner, or any other metal object. Replace any damaged wires.
	Ignitor gap is too large.	Verify spark gap is approximately 0.095" (2.41 mm) to 0.135" (3.43 mm).
Pilot won't light, there is no noise or spark.	No AC power, AC/DC adaptor faulty, backup batteries (if being used) depleted, IFT-ECM slider switch in OFF position.	Verify IFT-ECM slider switch is in ON or remote position. Verify AC power available to junction box. Verify AC/DC adaptor is plugged into junction box and ECM. Verify AC/DC adaptor output voltage is between 5.7-6.3 DC. If battery pack is used, check battery pack voltage is >4.2 V (if not, replace batteries).
	Shorted or loose connection in system wiring or wiring harness.	Verify system wiring configuration. Remove and reinstall wiring harness that plugs into module. Check continuity of wires in valve wiring harness. Replace any damaged components.
	Poor or no system ground.	Verify black ground wire in valve harness is connected to metal chassis of fireplace.
Pilot won't light, there is no noise or spark, 2 Red/1 Green Lockout.	Pilot solenoid not detected.	Check if valve harness orange wire is connected to pilot solenoid valve. Check pilot solenoid resistance, nominal is 40 ohms. If open or shorted, replace valve. Check valve harness wire continuity, if open replace 6-pin harness.
Pilot won't light, there is no noise or spark, 2 Red/2 Green Lockout.	Spark coil failure.	Replace ECM.

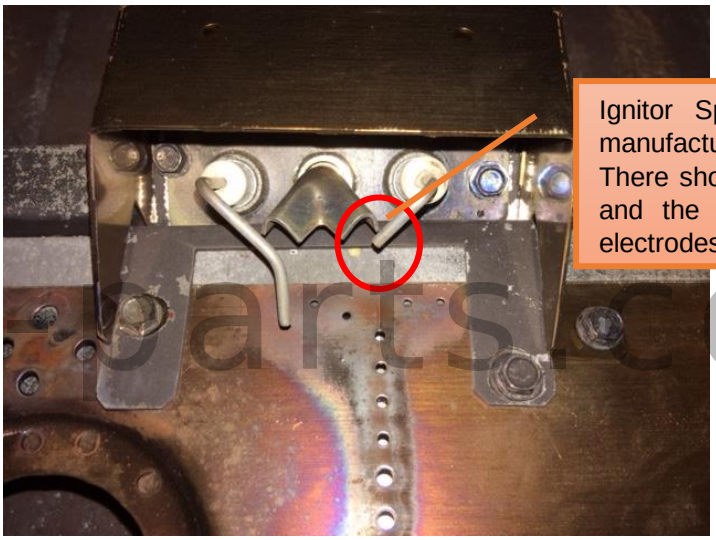
fire-parts.com

IFT Ignition Spark Sequence

The IFT-ECM has either a 60 or 90 second trial for pilot ignition/rectification, depending on the ECM version level. During pilot ignition and then flame rectification, the module will generate spark discharge at the IPI Pilot Assembly. The IFT-ECM produces semi-continuous spark discharge, *with a two second pause every eight seconds*. In other words, the IFT-ECM is designed to generate spark at the pilot for eight seconds, followed by a two second pause, followed by another ten second cycle.

8 seconds SPARKING – 2 seconds NO SPARK – *repeated for up to 90 seconds*

This sequence is normal – do not change the module.



Ignitor Spark Gap is set during manufacturing at 0.1 to 0.13 inch. There should be no need to adjust, and the spark and flame sensor electrodes are not adjustable.

fire-parts.com

Power Source Effect on Spark Discharge

The power source to the IFT-ECM affects the ignition sparking characteristics. If “weak” or “slow” spark occurs, verify that the power source is 6+/-0.3 VDC. Reduced voltage, primarily when operating on battery backup, will cause the less spark energy intensity at the pilot. If operating on batteries, replace with new AA cells, and verify performance with full battery voltage.

Pilot Flame Sense Rectification Troubleshooting

Symptom	Possible Cause	Corrective Action
Pilot sparking, but will not light, 3 Red/1 Green Lockout.	No gas supply.	Verify incoming gas line ball valve is 'Open'. Verify inlet pressure is within requirement for gas type used. Contact gas supplier.
	ECM has poor ground.	Verify wiring, check valve harness black wire is securely grounded to metal chassis.
	Gas valve defective.	Check pilot valve solenoid kick and hold voltages during ignition cycle. Kick V should be >1 V, hold V minimum 0.26 V. If voltages are OK, replace gas valve.
Pilot lights but main burner does not light. Pilot continues to spark for then goes into 3 Red/1 Green Lockout.	No flame detected. Flame rectification issue.	Check if white sense lead is securely connected to 'S' terminal of IFT-ECM. Check resistance of sense lead between sense rod tip and connector to IFT-ECM, should be less than 1 ohm - if not, replace pilot assembly. Check system ground, ensure black valve harness wire is securely attached to metal chassis. Check wiring for damage. With system OFF, check resistance between tip of sense rod and pilot hood, should be resistance (>1 M-ohm).
	No flame detected or sense rod contamination.	With glass assembly installed, verify pilot flame is engulfing flame sense rod on pilot assembly. Verify inlet gas pressure is correct for gas type. Polish flame sense rod with fine steel wool to remove any contaminants that may have accumulated.
Pilot lights and rectifies, but main burner does not light.	Main valve solenoid.	Check if green wire in valve harness is connected to green main valve solenoid. Check main valve solenoid resistance, nominal is 60 ohms. If open or shorted, replace valve. Verify valve inlet pressure is correct for gas type.
Pilot and main do not light, ECM goes into 5 Red/1 Green Lockout.	Power Vent (PV) Failure.	Power Vent blower defective - check wiring to IFT-ACM, check if blower is working. Check if PV pressure switch is connected to brown and black wire in 6-pin valve wire harness. Check if pressure switch is closed (shorted) when PV blower is running. Refer to PV troubleshooting instruction (section).
Appliance lights and runs for a few minutes then shuts down and/or appliance cycle ON and OFF with less than 90 sec of ON time.	Shorted or loose connection in flame detection circuit.	Check if white sense lead is securely connected to 'S' terminal of IFT-ECM. Check resistance of sense lead between sense rod tip and connector to IFT-ECM, should be less than 1 ohm - if not, replace pilot assembly. Check system ground, ensure black valve harness wire is securely attached to metal chassis. Check wiring for damage. With system OFF, check resistance between tip of sense rod and pilot hood, should be resistance (>1 M-ohm).
	Poor flame rectification or contaminated sense rod.	With glass assembly installed, verify pilot flame is engulfing flame sense rod on pilot assembly. Verify inlet gas pressure is correct for gas type. Polish flame sense rod with 320 grit emery cloth and/or Scotchbrite™ pad to remove any contaminants

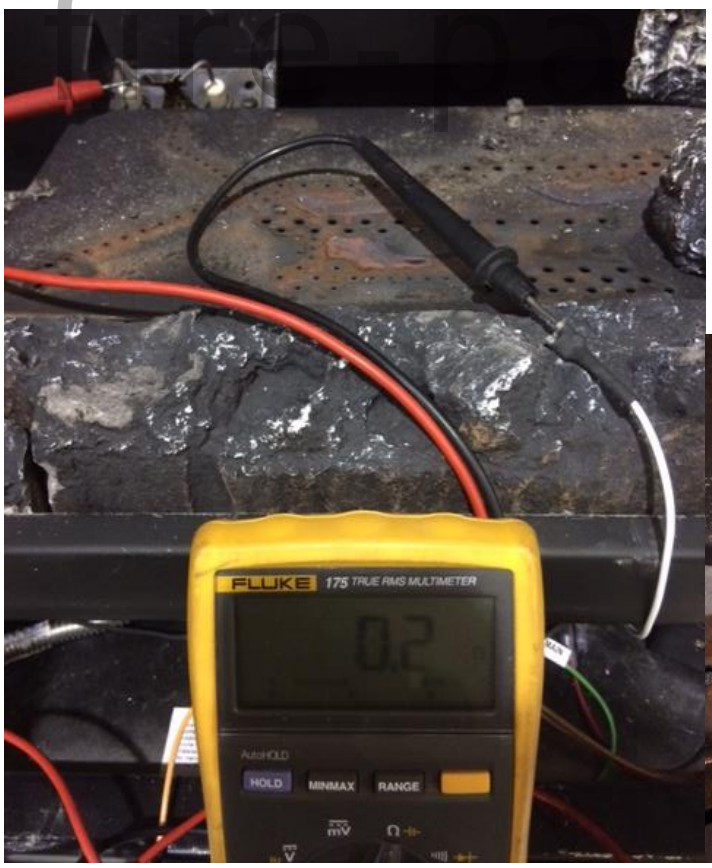
fire-parts.com

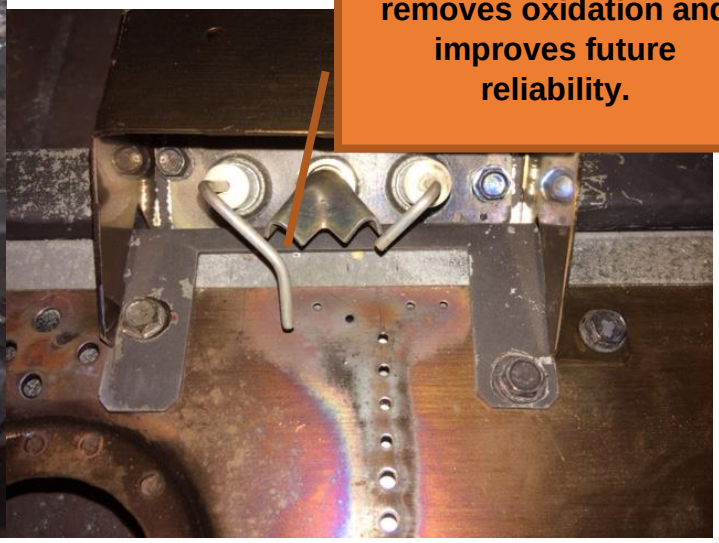
		that may have accumulated. Verify no soot deposits are in sense rod to pilot hood gap.
	Logs are set up wrong.	Remove and re-install logs per the log placement instructions.
	Damaged pilot assembly.	Verify the pilot assembly ceramic insulator around the flame sensing rod is not cracked, damaged or loose. Check resistance between tip of sense rod and IFT-ECM connector, should be less than 1 ohm. Replace pilot assembly if damage is detected.

IPI Pilot Flame Sensor Resistance Checks

- Sensor wire resistance is a fast and effective measurement of the pilot function.
- Normal resistance, at room temperature, is < 1 ohm. With this measurement, it is unlikely that the IPI Pilot is the direct cause of delayed flame rectification.
- High resistance of > 1 ohm may affect the rectification sensing rate of the pilot flame. If the sensing rate is slow, and resistance is > 1 ohm, clean and polish the sensor electrode with 320 grit emery cloth of Scotchbrite™ pad. If this does not improve the sensing rate and lower resistance, then it is likely that changing the pilot will improve reliability.
- Verify that the pilot has not been painted. Never paint the pilot. If re-painting a firebox during service, always cover the pilot to protect it from paint contamination.

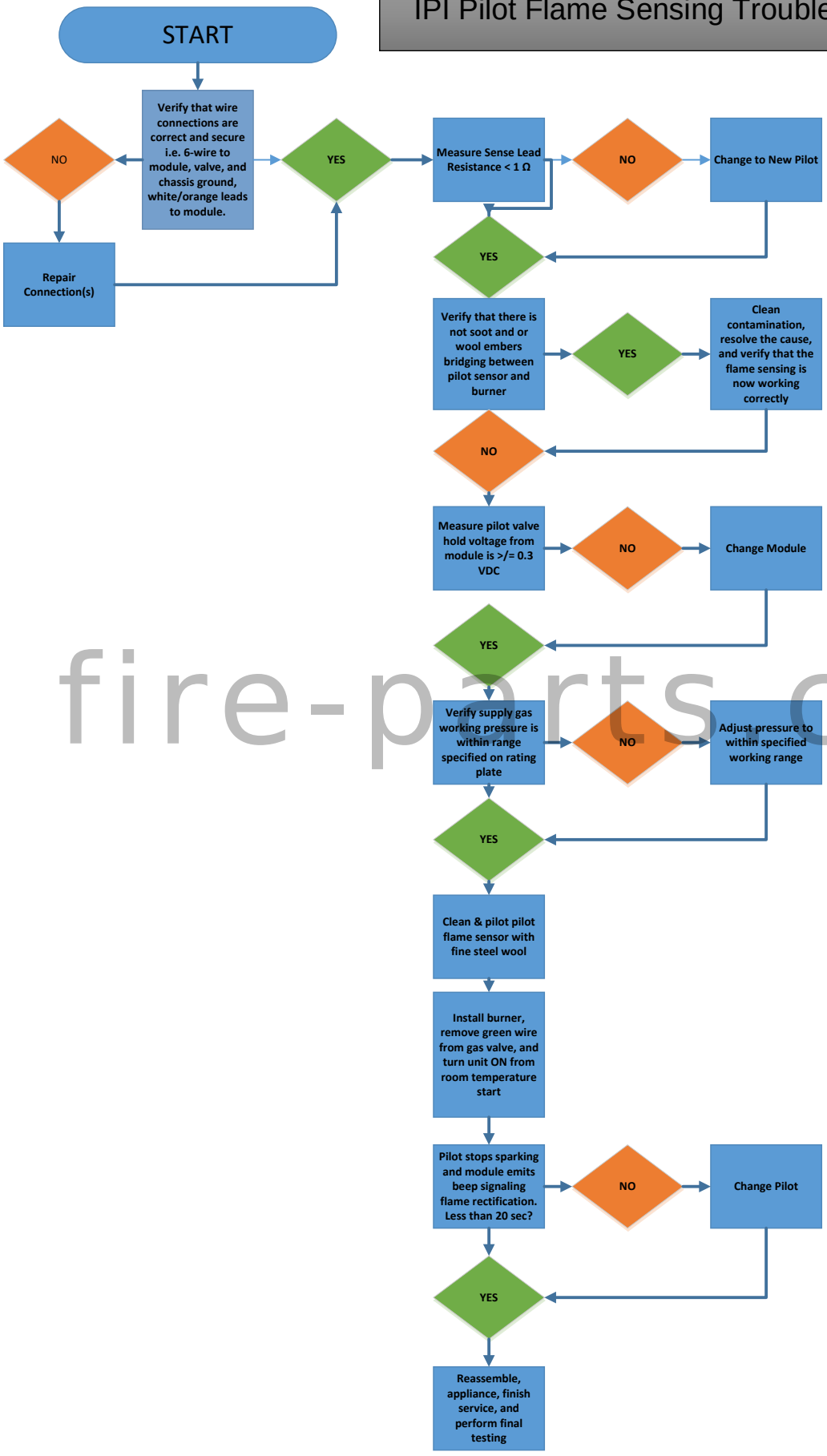
fireparts.com





Clean and polish the flame sensor with 320 grit emery cloth and/or Scotchbrite™ pad during service events. This removes oxidation and improves future reliability.

IPI Pilot Flame Sensing Troubleshooting Flowchart

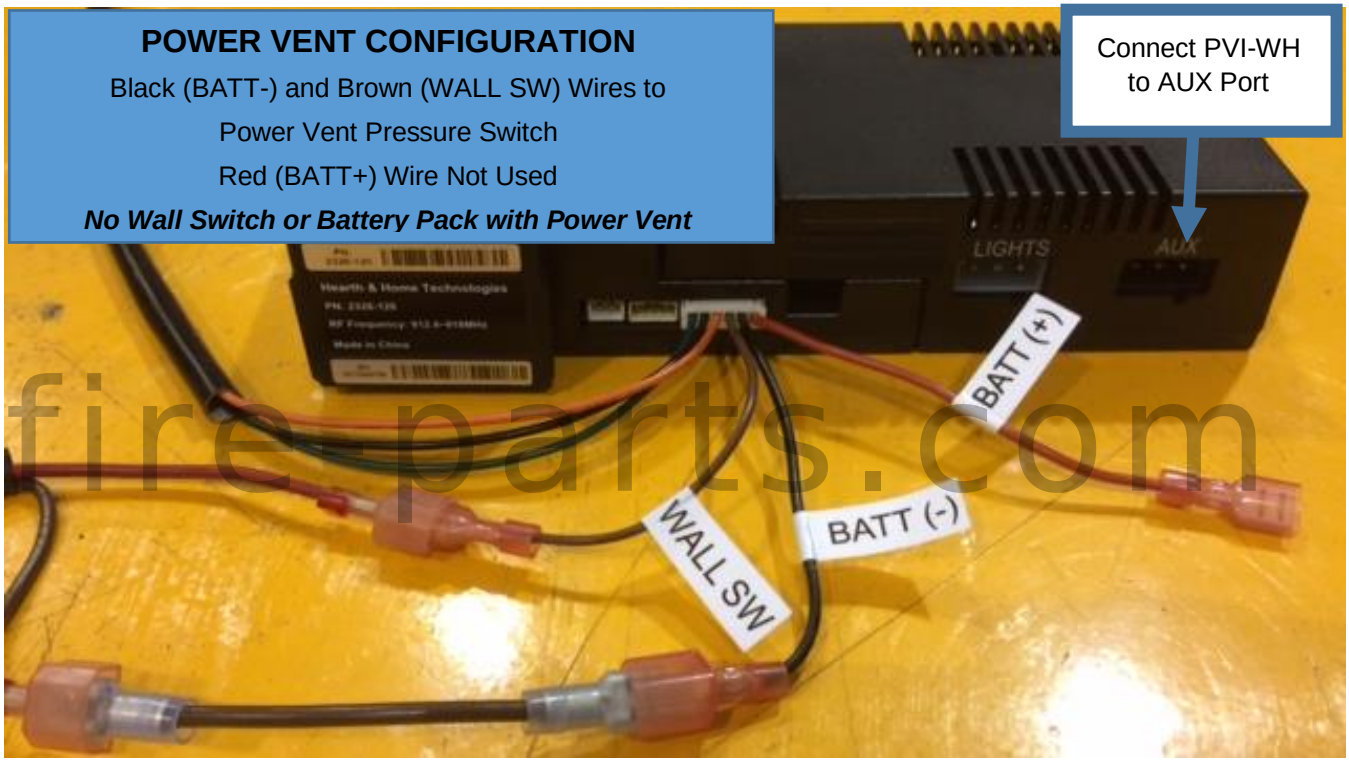


fire-parts.com

IFT Appliance Equipped with Powervent or SMART-WALL

- PVI-WH Wire harness connects to the 'AUX' port on the ACM, and the black and brown wires on the ECM. A jumper wire include in the kit is needed to complete the connections.
- RC150 or RC400 required to operate Powervented and SMART-WALL appliances.
- Wired wall switch and battery backup are not available with Powervented or SMART-WALL equipped appliances.

WARNING! AFTER INSTALLATION OF POWERVENT KIT or SMART-WALL, THE RC400/RC150 IFT ECM MUST BE RE-PAIRED FOR SAFE OPERATION!



- For the Powervent installation to be complete:
  - The ECM and Remote(s) must be re-paired after the Powervent/SMART-WALL is added to the appliance. Refer to the RF and Pairing section for the procedures.
  - The appliance and Powervent/SMART-WALL must be operated to verify proper function after installation. See next section for required-function test procedure.

Powervent Appliance Function Testing with the IFT-RC400

- Activate touch screen on RC400. Touch 'Turn Flame ON' Icon.
- Observe touch screen – if system is configured properly for Powervent operation, a two-minute countdown icon will be displayed next to 'Turn Flame OFF'.

After Powervent installation and re-pairing, function test to verify that the Pre-Purge ICON exists during FLAME ON state.

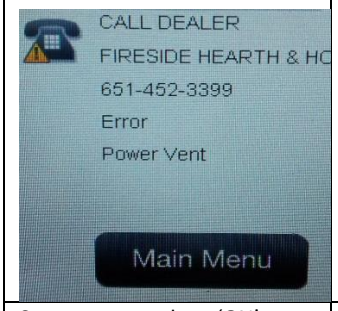
fire-parts.com

- If the RC400 display is correct, the Powervent will be running and the two-minute countdown timer will run, after which the pilot will ignite followed by the main burner.
- Touch 'Turn Flame OFF' on the RC400. If display is incorrect, refer to troubleshooting section. The pilot and main will extinguish. The Powervent will continue to run for 20 min.

Powervent Appliance Function Testing with the RC150

- Press upper switch of RC150.
- Verify that the system is configured properly for Power Vent operation, the Power Vent will be running, and a two-minute countdown timer will occur with the Power Vent running, after which the pilot will ignite followed by the main burner.
- Press Lower toggle on the RC150. The pilot and main will extinguish. The Power Vent will continue to run for 20 min.

FAQ/Troubleshooting IFT Controls with Powervent or SMART-WALL

Symptom(s)	Possible Cause(s)	Corrective Action
System will not respond to 'ON' command. IFT-ECM in lockout with 5 RED: 1 GREEN LED Error Code. RC400 shows 'Call Dealer - Powervent Error' Message 	1. Power Vent Motor Failure 2. Power Vent Over Heating 3. Power Vent Pressure Switch Open 4. Blocked Flue 5. Insufficient Draft 6. IFT-ECM selector switch in 'ON' Mode	1. Verify that the wiring within the Powervent is correct. Verify that the PVIPVLP/PVV-SLP Cord assembly is correctly connected to the IFT switch wires, and the AUX port on the IFT-ACM. 2. Verify that blower operates during 'ON' command. 3. Verify that the PVI/PVLP/PVV-SLP is correctly installed such that it is properly vented and will not overheat. 4. Verify that venting is connected and sealed properly. Verify termination is not blocked. 5. Verify the Teflon tube between the blower and pressure switch is securely connected. 6. Verify that the 'ON' command is provided with IFT-ECM in 'REMOTE' mode with approved remote control.
System responds to 'ON' command. After It completes 120 second pre-purge, IFT system fails to rectify proven pilot flame. IFT-ECM in lockout with 3 RED: 1 GREEN LED. RC400 shows 'Call Dealer - Appliance safety disabled' Message	Pilot Rectification Failure resulting from: 1. Soot or embers contaminating pilot and burner 2. Shorted/melted pilot white 'S' sensor wire 3. Disconnected pilot white 'S' sensor wire 4. Excessive draft turbulence acting on the pilot flame 5. Oxidation or resistance on the IPI pilot flame sense electrode 6. Supply gas pressure out of specification	1. Verify that the IPI Pilot is clean. If necessary, remove any soot or ember deposits, and clean/polish flame sensor electrode with fine steel wool. If sooting is present, determine possible causes to correct issue. 2. Verify that the IPI pilot white 'S' wire is securely connected to the IFT-ECM and is not melted/pinched/shorted along its length. Replace pilot is damage exists. 3. Verify that the gas supply working inlet pressure is within the specification range. 4. Verify that the black wire on the IFT wiring harness is securely attached to the chassis ground. 5. Verify that the pilot flame is igniting easily, and the pilot flame is not compromised by excessive draft. With glass assembly fully installed, verify that the pilot flame is stable and fully engulfing the flame sensor electrode. 6. Verify that the pilot sensor/wire resistance is < 1 ohm. If > 1 ohm, and flame rectification is occurring slowly, replace the pilot.
Pilot ignites and rectifies flame, but burner fails to light, or does not fully light.	Excessive draft.	1. Verify that the glass is properly installed, and all latches are engaged. 2. If applicable place ember material along the back side of the affected burner ports – that can reduce draft affect and promote ignition.

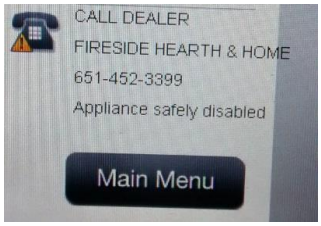
fire-parts.com

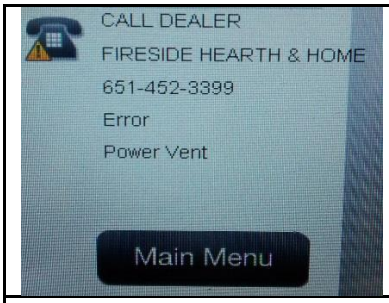
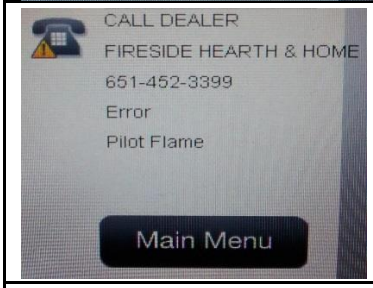
FAQ/Troubleshooting – Appliance Controlled with RC150 Wireless Wall Switch

Symptom	Possible Cause	Corrective Action
The appliance does not respond to commands from the IFT-RC150 and the LED does not blink.	Batteries are depleted.	Verify batteries are new.
	Batteries are incorrectly installed.	Verify batteries are installed in correct orientation as shown on battery receptacle.
The appliance does not respond to commands from the IFT-RC150 but the LED blinks. **Note:** In this state, the LED may blink once every 2 seconds for a duration of 2 minutes, for every 12 minutes.	The IFT-ECM is not in "REMOTE" position or is not powered.	Verify the IFT-ECM has the three-way position switch set to REMOTE and is connected to power (AC/DC Transformer or Batteries)
	The IFT-RC150 is not paired to the IFT-ECM.	To pair the IFT-RC150 to IFT-ECM, follow the instructions in installation manual.
	There is a power outage and the appliance is operating with the emergency backup batteries.	Verify that the backup batteries in the appliance are installed in the correct orientation.
	Defective IFT-ECM or RF module.	Replace module.
The IFT-RC150 LED blinks randomly even though no command is given.	Communicating with IFT-ECM.	This is normal operation. The IFT-RC150 communicates periodically with the IFT-ECM to send or receive information.
The IFT-RC150 LED blinks in a pattern of every 3 seconds continuously for longer than 5 minutes.	Low battery indicator.	Replace the batteries in the IFT-RC150 with new batteries.
The appliance turns OFF the flame after extended periods of operation.	9 hours safety shutdown timer.	This is normal operation. The appliance will automatically turn the flame OFF after 9 hours of uninterrupted operation.
IFT-RC150 does not pair with the IFT-ECM.	IFT-ECM is not connected to its power source.	Verify IFT-ECM is connected to power and the three position switch is set to REMOTE. Follow pairing process listed in the installation manual.
	Noisy radio environment is preventing IFT-ECM and IFT-RC150 from communicating.	The IFT-ECM and IFT-RC150 operate on the 915MHz radio band. Allow up to 10 minutes for the IFT-ECM and IFT-RC150 to establish contact. If the problem does not get resolved, try powering OFF and ON both the IFT-ECM and IFT-RC150 and perform pairing function listed in the installation manual

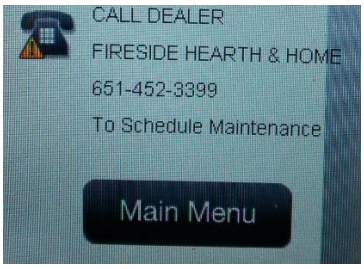
fire-parts.com

FAQ/Troubleshooting – Appliance Controlled with IFT-RC400

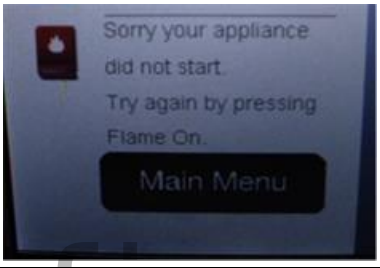
Symptom	Possible Cause	Corrective Action
	No pilot ignition or flame rectification, valve not working, or flame detected before expected. ECM responds with hard lockout, 3Red:1Green Hard Lockout.	***Refer to Pilot Ignition Troubleshooting and/or Pilot Flame Sensing Rectification sections***

	Power Vent or Vacuum switch does not work, or ECM is in manual ON.	***See IFT Appliance Equipped with Powervent Troubleshooting (section __)***
	**Pilot Valve Solenoid**	***Refer to Gas Valve Troubleshooting***
The appliance does not respond to commands from the IFT-RC400 - display does not light up when screen is touched.	Batteries are depleted.	Verify batteries are new.
	Batteries are incorrectly oriented.	Verify batteries are installed in correct orientation as shown on batteries receptacle.
The display on IFT-RC400 lights up when screen is touched but it does not respond to commands.	Child Lock is ON.	Check child lock icon located at the top of the RC400 display. If ON, it will show as a 'locked' symbol. To unlock, remove battery compartment door, locate child lock switch and move to 'unlock' position. Verify child lock icon on screen is now displayed in 'unlock' position.
	IFT-ECM selection switch is not in "Remote" mode	Verify IFT-ECM selector switch is in "Remote" mode.
	IFT-ECM has had a safety shutdown.	Look for 'diagnostics' icon located at the top of RC400 display. If red, touch anywhere on the gray indicator bar to access a secondary menu and check for any error messages. Address the error messages and power cycle the IFT-ECM by moving the slider switch from REMOTE to OFF and back to REMOTE.
	IFT-RC400 is not paired to IFT-ECM.	Tap anywhere on the gray indicator bar to access asecondary menu and verify if the pairing icon is green. If it is not green, then the RC400 has not been paired yet. Follow section F on pairing to successfully pair the RC400 with the IFT-ECM.
	Optional components such fan, lights or power vent are not installed correctly.	Verify peripheral component connections to IFT-ACM. Follow Section F on pairing to successfully pair the RC400 with the IFT-ECM.
IFT-RC400 displays the following message on-screen: No dealer info available	Dealer information not programmed into remote.	Remote will still provide all available function, and appliance fully available for use. Input dealer information.

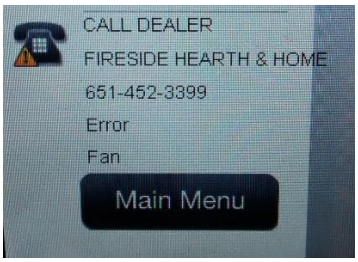
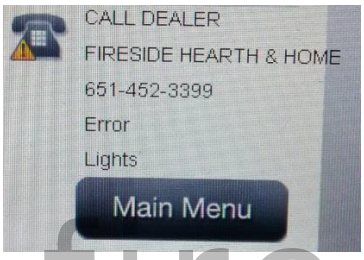
fire-parts.com

IFT-RC400 displays the following message on-screen: Call “Dealer Name & Number” to schedule maintenance. 	300 hrs. of use. Appliance is still fully functional.	The appliance has been burning for 300 hours and is due for maintenance. Perform maintenance.
The room temperature displayed on the IFT-RC400 is either slow or quick to respond while operating in thermostat mode.	IFT-RC400 is placed at a very short distance or too far away from the appliance.	Try to keep the IFT-RC400 close to the appliance but not directly in front of it.
	IFT-RC400 is placed in the path of an air draft or vent.	Move the IFT-RC400 away from the direct path of air flow.
	Flame Modulation	The IFT system is designed to automatically adjust the flame intensity based on the difference between the desired room temperature, and actual temperature. In thermostat mode, the hearth appliance will start in HI flame, but as the actual temperature approaches the desired set temperature on the remote, the flame intensity will automatically decrease. Automatic flame modulation will result in more control of the temperature but will cause the appliance to cycle OFF/ON less.
The appliance turns OFF the flame after extended periods of operation	9 hour safety shutdown timer	This is normal behavior. The appliance has a safety timer that will automatically turn OFF the flame after nine hours of uninterrupted operation.
IFT-RC400 does not pair or un-pair from the IFT-ECM	IFT-ECM is not connected to its power source	Verify IFT-ECM is connected to power and the three position switch is set to REMOTE. If operating off battery backup, ensure that all four batteries are NEW.
	Noisy radio environment is preventing IFT-ECM and IFT-RC400 from communicating.	The IFT-ECM and IFT-RC400 operate on the 915MHz radio band. Allow up to 10 minutes for the IFT-ECM and IFT- RC400 to establish contact. If the problem does not get resolved try powering OFF and ON both the IFT-ECM and IFT-RC400 and perform pairing function.
IFT-RC400 displays the following message on-screen: Fan will turn on within 3 minutes"	Functioning as intended.	The appliance has a three minute delay timer before the fan is turned ON. This allows the air surrounding the appliance to be heated before being pushed into the room.
IFT-RC400 displays the following message on-screen: “Replace remote batteries."	Low battery in IFT-RC400.	Install new batteries in the IFT-RC400.

fire-parts.com

The flame height on the IFT-RC400 does not appear to be doing anything.	Stepper motor is not connected.	Check if the 4 pin wiring harness from the stepper motor is connected to the IFT-ECM.
IFT-RC400 is displaying an incorrect brand.	IFT-RC400 was programmed incorrectly.	Call dealer to have them program the IFT-RC400 with correct branding. IFT-RC400 is still fully functional and the appliance is unaffected.
After turning flame ON using display, the flame does not turn ON immediately and instead a two minute timer is displayed.	Power vent is installed on the appliance.	This is expected behavior and the two minute timer is called a pre-purge timer. The flame will turn ON at the expiration of the timer.
RC400 displays "Sorry your appliance did not start. Try pressing flame on again". 	Failed ignition trial on NG Appliance, with ECM set to NG mode, on appliances equipped with ECM with Firmware G	If this occurs repeatedly, verify gas supply, then gas valve, then pilot flame sensing.
IFT-RC400 displays the following message on-screen: "Remote Control Communication Error."	No power to Appliance	Verify home circuit breaker is on and master reset is on (if equipped).
	Power Outage	Install new batteries in battery backup.
	IFT-ECM Mode	Verify selector switch in "Remote" mode.
	IFT-ECM Power	Verify IFT-ECM connected to AC adapter and AC adapter is plugged into the Junction Box.
The IFT-ACM does not respond to commands from the IFT-RC400	IFT-ACM was newly installed and not paired.	Make sure that the pairing procedure has been followed especially if the IFT-ACM was newly installed.
	The power cord between IFT-ACM and junction box is disconnected.	Make sure the power cable is properly inserted into the IFT-ACM and the junction box.
	IFT-ACM and IFT-ECM are not latched.	Check the connection between the IFT- ACM and IFT-ECM by making sure they are latched together.
	Convection blower malfunction.	Using an RMS voltage meter, check the voltage coming out of the fan port on the IFT-ACM when the fan is set to highest level on the IFT-RC400. If the voltage measured is close to 120V AC then power down the appliance and install a new fan and verify if the issue has been resolved.
	Fuse in IFT-ACM is blown.	Using an RMS voltage meter, check the voltage coming out of the fan port on the IFT-ACM when the fan is set to highest level on the IFT-RC400. If voltage measured is closer to zero, then replace the IFT-ACM itself

fire-parts.com

IFT-RC400 display the following message on-screen: Call Dealer Error: Fan 	IFT-ACM is not responding to IFT-RC400.	Follow steps listed in the previous symptom.
	Fan is not plugged into IFT-ACM.	Check wiring and connections
	Spade connectors are mis-wired.	Some fans may be connected to the IFT-ACM using spade connectors. For safety, turn off the power to the appliance and check to see if the wires on either end of the spade connector do not match in color as they might be mis-wired.
IFT-RC400 display the following message on-screen: Call Dealer Error: Lights 	Ember/backlighting malfunction.	Using a voltage meter, check the voltage coming out of the lights port on the IFT-ACM when the lights are set to highest level on the IFT-RC400. If the voltage measured is close to 120V AC then power down the appliance and install a new light kit and verify if the issue has been resolved.
	Fuse in IFT-ACM is blown.	Using an RMS voltage meter, check the voltage coming out of the lights port on the IFT-ACM when the lights are set to highest
		level on the IFT-RC400. If voltage measured is closer to zero, then replace the IFT-ACM itself.
	IFT-ACM is not responding to IFT-RC400.	Follow steps listed in the second symptom.
	Lights are not plugged into IFT-ACM.	Check wiring and connections.
	LED controller is not functioning.	Some appliances come with an LED controller that plugs into the Lights port on the IFT-ACM. Verify its wiring and that it is functioning and if not replace it and verify if the problem is resolved.
Lights are blinking and/or fan and Powervent blowers are fluctuating.	Poor quality of power from local power station.	Check with customer if they are also noticing issues with other unrelated appliances and if other lighting fixtures are also blinking/dimming randomly. If so, install a surge suppressor between the hearth appliance and its power source.

fire-parts.com

Wi-Fi Module and Mobile App

Appliance Wi-Fi Control Compatibility

Wi-Fi Module 2326-137 is compatible with the Electronic Flame Control Module (IFT-ECM) that has the Wi-Fi label. See Figure below:

fire-parts.com

Note: The IntelliFire Wi-Fi module supports 2.4GHz or 2.4GHz / 5GHz dual band Wi-Fi networks only. To check your network frequency, refer to your wireless router manual or contact your internet service provider.

It is not necessary to perform a pairing function when adding a Wi-Fi module to an IFT Control System. It is also not necessary to perform a pairing function after performing a Wi-Fi configuration reset. The pairing function is only required when adding a new remote control, RFM module, or new accessory. Use the following table to guide pairing of new accessories, remote controls, and wifi module with IFT Controls:

Re-pair required?	Adding New	Replacing Existing
Lights/Fan or other Accessories	YES	NO
ECM	YES	YES
WFM	NO	NO
ACM	NO	NO
RFM	YES	YES
Remote (RC150/RC400)	YES	YES

Device Operating System Requirements

Android Release 6 or higher

iOS Release 12 or higher

Wi-Fi Signal Strength and Interference

Recommended distance from router to appliance is less than 50 feet. It is advisable to have the router auto select both channel and bandwidth. Distance, walls, and other household appliances can cause interference.

Steps to ensure adequate signal strength and reduced interference:

1. Speed Test – Validate that Internet Service Provider is operating effectively (see below for steps on how to run the speed test).
    - Access the internet from your device and search for “speed test.”
    - Position the device next to the appliance where the module will be installed.
    - Run the speed test while in airplane mode and Wi-Fi turned on. **Note:** Broadband is typically 40 mbs and greater. The WFM may not perform as well as the most recent smartphone, however, on a 2.4 Ghz network it should be very similar.

fire-parts.com

Strong	>5 megabits per second (mbs)	Successful connection
Moderate	1 to 5 mbs	May require movement of router closer to unit or Wi-Fi extender
Weak	<1 mbs	Requires movement of router closer to unit or Wi-Fi extender

2. If possible, move router to less than 50 feet from appliance.
3. If necessary, install a wireless extender within range of the appliance location.

Key Service Best Practices

1. Use the ECM selector switch during service. Do not use the app to turn burner ON/OFF while performing service.
2. Remove power from the appliance before disconnecting or changing controls.
3. Be aware that some error messages will be displayed slower in the Apps, compared to the RC400. If an appliance is equipped with an RC400, that should be preferred method to capture diagnostic information.

Installing the IntelliFire App

Instructions can be found in the User Guide shipped with the Wi-Fi module. The user must create an IntelliFire account after the installation of the IntelliFire app on the smart device. The user will receive an email confirmation. If the email is not in the user's inbox they should check their junk or clutter folder.

Primary user: There can only be one primary user. The user that connects the Wi-Fi module in the appliance to the app is the primary user. The primary user can edit, delete appliances, and/or locations associated to that account. The primary user can also allow secondary users to control the appliances.

Secondary user: Can control appliance features. They cannot edit/add location, edit/add appliance, add users, or change brand.

Problem Resolution Steps

1. Ensure there is power to the IFT Control System. Have the homeowner use the remote or wall switch to verify normal operation.
2. If the ECM and WFM are visible identify their LED indicator. Refer to the table below for the Wi-Fi Module Status LED. If connected to the internet, the WFM should have a solid green LED.
    a. Verify of the IFT-ECM LED is indicating an error code. If there is an error code on the IFT-ECM LED, refer to earlier content in this document to resolve the condition causing the fault. Once no error code is verified on the IFT-ECM LED, proceed to 2. b. below.
    b. For # 1,2,4 in the table below, refer to the IntelliFire® App Installation Instructions & User Guide and follow the installation process.
    c. For # 3 Disconnected from the Internet:
        i. Have homeowner verify internet is working on a non-cellular Wi-Fi enabled device or a smart phone in airplane mode with Wi-Fi turned on. If the Internet is down, then the Homeowner will need to contact their internet service provider.
        ii. If the internet is working, follow the steps in the Wi-Fi Signal Strength and Interference section above.
            1. If this checks out, inquire on any changes to the Wi-Fi Network
                a. New Service Provider may have required new Router/Network Id and Password
                b. New Router - needs to support 2.4 Ghz Band as outlined in previous sections and the IntelliFire® App Installation Instructions & User Guide.
                c. Change in Wi-Fi Network ID or Password
                    i. Refer to IntelliFire® App Installation Instructions & User Guide and follow the 'Resetting the Wi-Fi Connection' resolution found in the FAQ section.

fire-parts.com

Wi-Fi Module Status LED

The Wi-Fi module is equipped with an LED that can be used to indicate internet connection and setup status during installation and service.

# Behavior/State/Mode	LED Color: Blink Rate	Corrective Action
1. Access Point Mode Startup/Reset	GREEN: 0.2 Seconds ON (fast), 1.8 Seconds OFF(fast)	The Wi-Fi module comes in this mode from the factory. The Wi-Fi module is ready to be set up to the smart device. If you open a smart device, you will see IntelliFire_XXXX as an option in your Wi-Fi network settings. Follow the instructions in the install manual for setup.
2. Setup Mode connection to Home Network	GREEN: 1.0 Second ON (slow), 1.0 Second OFF(slow)	The Wi-Fi has been set up and connected to home network but has not made connection to the IFT server yet. Continue with the setup process.
3. Disconnected from the Internet	GREEN: 1.0 Second ON, 1.0 Second OFF	The Wi-Fi module is setup and was running, but now it will not accept any commands. Check if home network is functional and connected to the internet. This can be a temporary situation, wait a few minutes.
4. IFT-WFM connected to the Internet and is fully functional	GREEN: ON Solid	Wi-Fi module and app are ready to use and send/receive commands.
5. Command Sent to IFT-WFM	RED: 0.2 Second on	Wi-Fi module acknowledges command. You will also hear an audible beep.

fire-parts.com

IFT Wi-Fi App Troubleshooting

Message on the App Screen	Corrective Action
"An unknown error occurred."	The app ran into an unknown error. Check your home wi-fi network connection. Close the app and retry. If this continues to fail, follow the reset configuration steps.
"Appliance Safely Disabled: Your appliance has been disabled. Please contact your dealer and report this issue."	During operation the pilot lost rectification, the appliance has shut down. Contact dealer for service.
"Are you sure all flammable material is removed from in front of the appliance? If so, press OK below. If not, press Cancel."	This is to ensure all material is removed from in front of your appliance. Pressing 'OK' will start the appliance. If you press 'Cancel' the appliance will not turn on.
"Are you sure you want to connect to a network with no password?"	Wi-Fi Network has no password. Typically seen in commercial applications where a firewall system is in place.
"Connected to appliance Wi-Fi network. Appliance Serial: " + serial.	Informational

Message on the App Screen	Corrective Action
“Error: There was an error communicating with the appliance. Verify you are connected to the appliance’s Wi-Fi network and try again”.	Reset the configuration by one of two options: If you did not select a network yet and received this error, press Okay and the list of available network should populate. If you entered an incorrect network password, you will need to follow one of the two reset configuration options: **Option 1:** Cycle power OFF and back ON to the appliance by accessing the reset switch (if equipped) or its circuit breaker. After the power cycle, wait five minutes, then check to verify that the IntelliFire_xxxxxxx system is available in the Wi-Fi set- tings on your mobile device. Exit the app, and start the setup process from Page 3, step 1. **Option 2:** (Recommend that this is performed by a hearth pro- fessional) Press and hold the pilot button on the IFT-ECM for 10 seconds until you hear a long beep. See Figure 1 in Section 10. Option 2 requires partial disassembly of the appliance. After resetting the configuration, exit the app, and start the setup process from Page 3, step 1.
"Fan Error. Your appliance has detected that an accessory is not functional. Please contact your dealer and report this issue."	Fans are not operating correctly. Contact dealer for service.
"Fan will turn on within 3 minutes. Your appliance has a built-in delay that prevents the fan from operating within the first 3 minutes of turning on the appliance. This allows the air to be heated prior to circulation".	Informational
“IFTAPI.net, requires a client certification”.	The user should push on the authorization number.
"Invalid email address."	Verify email address is valid.
"Invalid location name"	Location name must be filled out (minimum of 3 characters).
"Invalid password - passwords must be at least 8 characters long and include at least one uppercase letter, lowercase letter, and number."	Follow password rules.
"Invalid password. Please make sure New Password and Confirm Password match."	Re-enter passwords so they match.
"Maintenance: Your appliance is due for routine maintenance check. Please contact your dealer to ensure your appliance is operating at peak performance."	A 300- hour maintenance reminder. Contact dealer for service.
"Missing appliance name."	Appliance name must be filled out (with a minimum of three characters).
"Password fields must match."	Passwords did not match. Re-enter matching passwords.
“Please check if you have internet access”	Confirm you are connected to your local Wi-Fi network and retry.
"Please enter a valid appliance name and try again."	Appliance name must be filled out (minimum of 3 characters).
"Please try again with a valid email address."	Verify the email address is valid.
"Please verify your device is connected to the internet and try again."	Your Wi-Fi network was not available to app. Ensure Airplane mode is off and/or your Wi-Fi is turned on.
"Pilot Flame Error: Your appliance has been disabled. Please con- tact your dealer and report this issue."	Pilot failed to light. Call dealer for service.
"Power vent message: “A pre-purge of 120 seconds is required”	Informational as a Power Vent or Smart Wall accessory is connected to the appliance.
“Server unreachable. Please check your internet connection.”	Confirm you are connected to your local Wi-Fi network and retry.
"Sorry your appliance did not start. Try again by pressing Flame ON."	If problem persists, call your dealer.

fire-parts.com

Message on the App Screen	Corrective Action
“There was a problem adding the user. Please try again with a valid email address.”	Verify the email address is valid.
"There was a problem adding this appliance. It may already exist on your account. Please verify and try again."	Sign out and back into the app. If the problem persists, delete your location, delete the app, reset the Wi-Fi module and try again by re-installing the app and following the IntelliFire App Installation Instructions. Reset the configuration by one of two options: **Option 1:** Cycle power OFF and back ON to the appliance by accessing the reset switch (if equipped) or its circuit breaker. After the power cycle, wait five minutes, then check to verify that the IntelliFire_xxxxxxx system is available in the Wi-Fi set- tings on your mobile device. **Option 2:** (Recommend that this is performed by a hearth professional) Press and hold the pilot button on the IFT-ECM for 10 seconds until you hear a long beep. See Figure 1 in Section 10. Option 2 requires partial disassembly of the appliance. After resetting the configuration, exit the App, and start the setup process from Step 1, Page 3.
"There was a problem deleting the user. Please try again."	The user is still connected to the account. Ensure there is a good internet connection and try again.
"There was an error adding the location. Verify you have not added this location before and try again."	Close the app and retry. If it continues to fail, delete the app and re-install.
"There was an error communicating with the appliance. Verify you are connected to the appliance's Wi-Fi network."	Your smart device is not connecting to the appliance Wi-Fi module. Make sure your Wi-Fi network is turned on and that there is a good connection.
"There was an error signing you out. Please restart the app."	Close out of the app and re-open.
"Your appliance has detected that an AUX port or accessory is not functional. Please contact your dealer and report this issue."	An accessory isn't operating correctly. Contact dealer for ser- vice.
"Your appliance is currently offline."	Check your wireless network. Confirm your network ID or password has not changed. Also confirm there is power to your wireless router.
"Your password has been changed. Please log in again."	Confirmation that password was changed. If you don't know password, go through the reset links.
"Your session has timed out. Please log in again."	The allowed access time for the login has expired. You will need to log back into the app.

fire-parts.com

Symptom	Possible Cause	Corrective Action
Mobile app becomes unresponsive.	Smart device memory issues; other apps are not working well either.	Download updates and restart IntelliFire app. Restart smart device.
I did not hear the second beep during the set up process.	Selected the wrong Wi-Fi network, did not enter Wi-Fi network password, entered the wrong network password, or weak network signal at the appliance.	Delete the location in the IntelliFire app. Remove power and then restore the power to your appliance. Re-run the set up process.
I do not see the IntelliFire network.	No power to the ECM / appliance. ECM is not Wi-Fi compatible, No Wi-Fi sticker on ECM.	Ensure your appliance has power. Ensure the ECM has power. Order a replacement ECM. Contact your dealer.
	Appliance is not Wi-Fi compatible.	
	Wi-Fi module is not fully plugged into the appliance.	Contact your dealer or if you have access to see the Wi-Fi module, confirm that you can see a green LED light (see figure above for location in appliance). If you do not see the light, make sure the Wi-Fi module is plugged into the control module.
	Smart device has Wi-Fi turned off.	Make sure Wi-Fi is turned on. If your device has airplane mode, ensure that is turned off.
	The appliance is already connected to the IntelliFire network.	Continue to the next step if possible. If unable to continue, follow steps below.
	Set up failed.	
IntelliFire app set up wasn't successful.	Wrong Wi-Fi network information was used.	**Resetting the Wi-Fi Configuration** Cycle power to your appliance and try again. If this fails, follow the steps below to reset module. This is recommended to be done by a hearth professional. 1. Access the IFT-ECM. Locate the 'PILOT' button on the top of the IFT-ECM. 2. Press and hold the pilot button for 10 seconds. The IFT-ECM will emit one audible beep for 4 seconds. Release the pilot button and verify that the Wi-Fi module resumes to display one green LED blink every two seconds. 3. If there is location info from previous setup attempt(s), delete it now. 4. It is important to close out all running applications, including the IntelliFire app, from your smart device. 5. Return to Step 1 of your setup instructions and start over.
	Setup process was interrupted.	
	Wi-Fi module is not in setup mode.	
	Change of Wi-Fi Network ID or Password caused by new router or by owner.	
Cannot log into IntelliFire app.	Forgot my email address, used wrong email during set up or invalid email used for IntelliFire app.	
	Wrong password was used.	Verify you entered the correct email address and password. If you forgot your password, follow the reset password steps in the app.
User can not add/remove fireplaces.	Only primary user can add/ remove appliances from account.	Verify you are the primary user by going to the user management screen in the app.

fire-parts.com

Symptom	Possible Cause	Corrective Action
My app crashed and closed out.	Issue with the app performance on your device.	Confirm you are on the latest software level of the app, if not, update. If this doesn't resolve the issue, delete the app and re-download from the App Store or Google Play Store.
Wireless network signal is weak by the appliance.	Too much interference from walls and/or other appliances	Move the wireless router closer to the appliance. Install a wireless extender that works with the current router. This will typically require the setup of a new location for all appliances using this network.
Accessories are not showing up on the app.	Appliance control module has not been paired. The accessory cable has become unplugged.	Contact your dealer.
Can't add a secondary user.	Secondary user has not created an IntelliFire account.	Secondary user needs to download the app and create an account.
Users are not receiving emails from IntelliFire (example: reset password email).	The email is in your junk/spam mail or your email account security filters prevent you from receiving IntelliFire emails.	Check your junk/ spam mail. If it's in there, move the email to your main inbox. If it is not there, contact your internet provider or create an email account on another platform (example: gmail.com).
Thermostat function is not working.	You do not have a remote or wall switch to relay the temperature.	Contact your dealer to purchase a remote or wall switch.
	Your remote or wall switch was not paired to your appliance.	Contact your dealer to pair your remote or wall switch.
	Your remote or wall switch batteries are dead and cannot relay the temperature.	Replace your remote or wall switch batteries.
Things that may appear to be a bad Wi-Fi Module but are not…. • Too many devices streaming, or just too many active devices • Device is slow, installing updates, the device needs to be restarted. • ISP outage • Internet – TC/IP protocol is very robust; however, things do go down. ○ Example Web page that just hangs, you refresh the web site and it works. ○ Another example, only a certain website does not work, others do.	Interference	Steps to find the cause of interference: Speed Test - Validate that Internet Service Provider is operating effectively Change channel to select narrow channel (20 mhz) bandwidth (note: this can impact signal strength and slow network speed) Move router closer to appliance Add wireless extender

fire-parts.com

Symptom	Possible Cause	Corrective Action
Status displays prior status – does not appear to be refreshing	Poor network performance - internet availability - Wi-Fi router signal malfunction.	Navigate to the location screen and select the appliance icon. Latest known status will be shown (i.e. Flame on, Thermostat Temperature, etc.). If equipped with RC400, refer to display and/or LED on the Electronic Control Module to rule out other causes of appliance malfunction
Mobile app becomes unresponsive.	Smart device memory issues: other apps are not working either.	Download updates and restart IntelliFire app.
		Restart smart device.
The IntelliFire WFM SSN is not visible on your smart device.	No power to the ECM	Add power to unit, ensure the ECM has power.
	ECM is not Wi-Fi compatible, No Wi-Fi sticker on ECM.	Order a replacement ECM.
	WFM is not fully plugged into ECM.	Check to see if WFM has a blinking LED Code 1, if the LED is off - fully seat the WFM into ECM.
	Phone/Tablet has Wi-Fi Turned off.	Turn on Wi-Fi, take device off Airplane mode if active.
	It is already connected to the Network.	Continue to next step if possible, Re-set IFT-WFM, delete Location from App and start over.
	Setup-Failed or User stopped during setup.	Reset IFT-WFM by pressing pilot button on ECM for 10 seconds until you hear a long beep. Then follow app setup instructions.
Mobile app setup is not working with IFT-WFM.	Wrong Wi-Fi network information was used.	
	Setup process was interrupted.	
	Change of Wi-Fi Network ID or Password caused by new router or by owner.	
	User is in the wrong location and controlling a different Appliance.	Try other Locations/units to see which one works.
	WFM LED code 4; solid Green, then the unit is connected to another account.	Try other Locations/units to see which one works. Someone else has set the unit up on their account. Contact them to get access or have them delete the appliance. This will allow setup under different account
Mobile app becomes unresponsive.	Mobile Device memory issues: other apps are not working adequately either.	
	If a location is deleted, all the associated appliances to that location will go back to an access point and will not be associated to your account if they were connected to the Internet.	If LED is blinking green Code 3, check other devices on the same network for ISP (Internet Service Provider) issue. If other devices are working, see 'Wireless network signal is weak by appliance'.
Used wrong email or invalid for IntelliFire app.	Homeowner changed their mind on which email to use.	Create new account using correct email address, All fireplaces will need to be added to new account by going thru setup process again. Deleting the appliances from old account first may save you from having to do hard reset by pressing pilot button for up to 10 seconds to put the IFT-WFM into setup mode.

fire-parts.com

Symptom	Possible Cause	Corrective Action
Cannot log into IntelliFire app.	Wrong email or Password was used.	Use Password Reset option on sign in screen of the mobile app.
User cannot add/remove fireplaces.	Only primary user can add/ remove appliances from account.	Have primary user log in and make the change.
Wireless network signal is weak by the appliance.	Too much interference from walls and/or other appliances	Move the wireless router closer to the appliance.
		Install a wireless extender that works with current router. This will typically require the setup of a new location for all appliances using this network.
Accessories are not showing up on the app.	A remote (RC400/RC150) has not been paired with unit.	Press the pairing button on the ECM, even if a remote will not be used. This will populate the app with the attached accessories.
	Accessory was added and the ECM has not been paired subsequently.	
	The accessory cable become unplugged during installation of IFT-WFM.	Ensure all cables are installed properly.
The Intellifire network SSN is not visible on the smart device	The Appliance ECM is not Wi-Fi compatible.	Replace ECM with a Wi-Fi compatible ECM.

fire-parts.com